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EXAMINER	
LEWIS, DAVID LEE	
ART UNIT	**PAPER NUMBER**
2629	

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,784	DIXON, BRIAN S.	
	Examiner	Art Unit	
	David L. Lewis	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Funston et al. (2002/0113881).**

As in claim 1, Funston teaches of a method of adjusting color of images displayed in ambient light, **figure 10 and 33,**

comprising: sensing a signal from a plurality of spectral regions of ambient light to define a sensed signature of the ambient light, **figure 10 item 262**;

comparing the sensed signature to predetermined signatures of light sources of different types to identify a type of light source that corresponds to the ambient light, **figure 10 item 264**;

and creating images modified by a predefined color adjustment for the type of light source identified, **figure 10 item 268, paragraph 122**.

Wherein the light is sensed and compared to a matching reference illuminant of a range and the color is balanced based on the comparison.

As in claim 2, Funston et al. teaches of which further comprises providing a predetermined signature and a predefined color adjustment for each type of light source, paragraph 143-145 and figure 12, wherein predetermined scene illuminants, such as for daylight, fluorescent lamp, and tungsten lamp, are provided with corresponding color look up table adjustments, as compared based on the measured light. The signature map is shown in figure 12 in the form of a color space diagram.

As in claim 3, Funston et al. teaches of wherein providing a predetermined signature includes providing data relating to intensity of a type of light source in each of the spectral regions for each of the different types of light sources, paragraph 143-145 and figure 12, wherein predetermined scene illuminants, such as for daylight, fluorescent lamp, and tungsten lamp, are provided with corresponding color look up table adjustments, as compared based on the measured light. The signature map is shown in figure 12 in the form of a color space diagram.

As in claim 6, Funston et al. teaches of wherein providing a predefined color adjustment includes defining an optical modification of one or more light components used to create the images, **paragraph 133 .**

As in claim 7, Funston et al. teaches of wherein defining an optical modification includes defining a filter through which one or more of the light components will be passed during creating images, **figure 21 item 184.**

As in claim 8, Funston et al. teaches of wherein sensing a signal from each of a plurality of spectral regions includes 1) selecting two or more spectral regions that in combination produce distinguishable signatures for each of the different types of light sources, **figure 12, paragraph 131**, and 2) sensing an intensity

from each of the two or more spectral regions, **figure 12, paragraph 122, 131-133**. wherein the color space diagram identifies three spectral regions that combine the red, blue, and green, data to determine a distinguishable signature. The color space detector 172 assess a color value of the ambient illumination and is used with a look up table to categorize or classify the scene illuminant as matching to a color temperature range.

As in claim 9, Funston et al. teaches of wherein sensing a signal for each of a plurality of spectral regions includes sensing the signal for each of three or more spectral regions, **figure 12, paragraph 122, 131-133, red, blue, green**.

As in claim 10, Funston et al. teaches of wherein comparing includes selecting a predetermined signature that most closely corresponds to the signal sensed for each of the spectral regions, **paragraph 122, 131-133**. wherein the color space diagram identifies three spectral regions that combine the red, blue, and green, data to determine a distinguishable signature. The color space detector 172 assess a color value of the ambient illumination and is used with a look up table to categorize or classify the scene illuminant as matching to a color temperature range.

As in claim 11, Funston et al. teaches of wherein creating images includes projecting light onto a surface, figure 23 item 20.

As in claim 12, Funston et al. teaches of wherein creating images includes 1) selecting image representations having data corresponding to the images, figure 10 item 264, 2) modifying the data according to the color adjustment, figure 10 item 268, and 3) sending the data to a light engine after modifying, figure 10 item 36, **paragraph 122, 131-133**. wherein the color space diagram identifies three spectral regions that combine the red, blue, and green, data to determine a distinguishable signature. The color space detector 172 assess a color value of

the ambient illumination and is used with a look up table to categorize or classify the scene illuminant as matching to a color temperature range.

As in claim 13, Funston et al. teaches of wherein selecting image representations includes selecting digital image files, paragraph 133 and 141.

As in claim 14, Funston et al. teaches of a system for adjusting color of images displayed in ambient light, **figure 10, 12, 23, and 30**,

comprising: a light engine configured to create images from a set of image representations, **figure 3 item 128**;

a light sensor for sensing a signal from each of a plurality of spectral regions of ambient light to define a sensed signature of the ambient light, **figure 3 item 172, figure 33 item 370, paragraph 224;**

and a controller in communication with the light sensor and the light engine, **figure 3 item 130**,

the controller having access to a predetermined signature and a predefined color adjustment for each of a plurality of different types of light sources, **figure 3 item 138 and 136**,

the controller being configured to compare the sensed signature to the predetermined signatures to identify a type of light source that corresponds to the ambient light, thereby defining a selected color adjustment based on the type of light source identified, **paragraph 81-83**,

the controller also being configured to modify each of the images created by the light engine with the color adjustment for the type of light source identified, **paragraph 81-83**.

As in claim 15, Funston et al. teaches of wherein the light sensor includes a plurality of filters that selectively permit light from each of the spectral regions to reach the light sensor, figure 21 item 184.

As in claim 16, Funston et al. teaches of wherein the light sensor includes a plurality of sensor elements, each sensor element of the plurality being configured to sense a different one of the spectral regions, figure 21 item 174.

As in claim 17, Funston et al. teaches of wherein the controller is configured to send instructions corresponding to the image representations to the light engine, figure 3 item 130, and wherein the controller is configured to apply the selected color adjustment before sending, figure 3 item 130, paragraph 81-83.

As in claim 19, Funston et al. teaches of wherein the controller is configured to send instructions for optical modification of light components by the light engine, the optical modification including selecting a filter through which to pass one or more of the light components, figure 21 item 184, figure 3 item 130.

As in claim 20, Funston et al. teaches of wherein the light engine is configured to project light onto a surface, figure 3 item 128/20, figure 33 item 36.

As in claim 21, Funston et al. teaches of a program storage device readable by a processor, tangibly embodying a program of instructions executable by the processor to perform methods steps for adjusting color of images displayed in ambient light, **paragraph 78**

the method steps comprising: providing a predetermined spectral signature and a predefined color adjustment for each of a plurality of different types of light sources, **paragraph 143-145, figure 12 and 33**, wherein predetermined scene illuminants, such as for daylight, fluoerescent lamp, and tungsten lamp, are provided with corresponding color look up table adjustments, as compared based on the measured light. The signature map is shown in figure 12 in the form of a color space diagram;

sensing a signal from a plurality of spectral regions of ambient light to define a sensed signature of the ambient light, **figure 10 item 262**;

comparing the sensed signature to each predetermined signature to identify a type of light source that corresponds to the ambient light, thereby selecting a color adjustment based on the type of light source identified, **figure 10 item 264, figure 33 item 384**;

and creating images modified by the selected color adjustment, **figure 10 item 268, paragraph 122, figure 33 item 388**.

As in claim 22, Funston et al. teaches of wherein providing a predetermined signature includes providing data relating to intensity of a type of light source in each of the spectral regions for each of the different types of light sources, paragraph 143-145 and figure 12, wherein predetermined scene illuminants, such as for daylight, fluorescent lamp, and tungsten lamp, are provided with corresponding color look up table adjustments, as compared based on the measured light. The signature map is shown in figure 12 in the form of a color space diagram.

As in claim 25, Funston et al. teaches of wherein providing a predefined color adjustment includes defining an optical modification of one or more light components used to create the images, **paragraph 133.**

As in claim 26, Funston et al. teaches of wherein defining an optical modification includes defining a filter through which one or more of the light components will be passed during creating images, **figure 21 item 184.**

As in claim 27, Funston et al. teaches of wherein sensing a signal from each of a plurality of spectral regions includes 1) selecting two or more spectral regions that in combination produce distinguishable signatures for each of the different types of light sources, **figure 12, paragraph 131**, and 2) sensing an intensity from each of the two or more spectral regions, **figure 12, paragraph 122, 131-133**. wherein the color space diagram identifies three spectral regions that combine the red, blue, and green, data to determine a distinguishable signature. The color space detector 172 assess a color value of the ambient illumination and is used with a look up table to categorize or classify the scene illuminant as matching to a color temperature range.

As in claim 28, Funston et al. teaches of wherein sensing a signal for each of a plurality of spectral regions includes sensing the signal for each of three or more spectral regions, **figure 12, paragraph 122, 131-133, red, blue, green.**

As in claim 29, Funston et al. teaches of wherein comparing includes selecting a predetermined signature that most closely corresponds to the signal sensed for each of the spectral regions, column 10 lines 35-65, wherein the outcome is based on whether the sensed information matches the target information, **paragraph 122, 131-133**. wherein the color space diagram identifies three spectral regions that combine the red, blue, and green, data to determine a distinguishable signature. The color space detector 172 assess a color value of

the ambient illumination and is used with a look up table to categorize or classify the scene illuminant as matching to a color temperature range

As in claim 30, Funston et al. teaches of a system for adjusting color of images displayed in ambient light, **figure 5 and 6**,

comprising: means for sensing a signal from a plurality of spectral regions of ambient light to define a sensed signature of the ambient light, **figure 33 item 382**;

means for comparing the sensed signature to predetermined signatures of different types of light sources to identify a type of light source that corresponds to the ambient light, **figure 33 item 384**;

and means for creating images modified by a predefined color adjustment for the type of light source identified, **figure 33 item 388 and 36**.

As in claim 31, Funston et al. teaches of wherein comparing includes comparing the sensed signature to predetermined signatures of different types of light sources selected from the group consisting of the sun, incandescent light sources, fluorescent light sources, hybrid incandescent-fluorescent light sources, light-emitting diodes, and high-intensity discharge light sources, paragraph 114 aand 226.

As in claim 4 and 23, Funston et al. teaches of wherein providing a predefined color adjustment includes defining one or more lookup tables for transformation of input color values to output color values, paragraph 83, 140-143, 230, and wherein creating images includes modifying input values from digital image files using the one or more lookup tables of the selected color adjustment, paragraph 83, 140-143, 230.

As in claim 5 and 24, Funston et al. teaches of wherein defining one or more lookup tables includes defining a three-dimensional lookup table configured to transform a plurality of input color values to a single output color value, figure 12, paragraph 83, 140-143, 230.

As in claim 18, Funston et al. teaches of wherein the image representations include image elements each having a plurality of input color values, and wherein the selected color adjustment defines a lookup table configured to relate the plurality of input color values to a single output color value for at least a subset of the image elements, figure 12, paragraph 83, 140-143, 230.

Response to Arguments

2. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection. See the new Non-final rejection.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 2002/0118967

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.

5. Please note that all future correspondences directed to David L. Lewis must be sent to Art Unit 2629.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: David L. Lewis
October 30, 2006